

CASE NO.: HSJ920030051US1
Serial No.: 10/629,513
June 29, 2005
Page 6

PATENT
Filed: July 29, 2003

Remarks

Reconsideration of the present application is respectfully requested. Affirmation of the election is confirmed, and the informality of Claim 13 and its dependent claims is corrected hereby. Claims 1 and 13 have been amended to clarify that the first lead layer is closer to the sensor than is the second lead layer, as shown in the figures.

Claims 1-3, 7, 13, 14, 16, and 19 have been rejected under 35 U.S.C. §102 as being anticipated by Pinarbasi, USPN 6,813,121, in which a bottom lead layer 37 is made of Ta, a middle lead layer 38 is made of Cr, and a top lead layer 39 is made of Rh, with the focus of the lead layer structure not being polish resistance but something entirely different, namely, conductivity. Claims 1, 2, 4-6, 8, 13-15, 17, 18, and 20 have been rejected under 35 U.S.C. §103 as being unpatentable over Hasegawa et al., USPP 2004/0027731, which teaches a bottom lead layer made of an alloy of gold (Au alloyed with either Pb, Cr, or Cu or Au alloyed with Cr, Rh, Ru, Ta, or W, paragraph 35) and a top lead layer made of Au, Cu, or Ag, with the focus on the materials used being ductility (paragraph 34), not polish resistance.

Compare these structures with that recited in Claim 1, which includes a first lead layer juxtaposed with the sensor and a second lead layer juxtaposed with the first lead layer. Thus, for convenience this discussion will refer to the first lead layer as a "lower" lead layer and the second lead layer as an "upper" lead layer. The amendment to Claim 1 clarifies this relationship.

According to Claim 1, the lower lead layer must have a material property, namely, a polish resistance, that is different from that of the upper lead layer, specifically that must be greater than the polish resistance of the upper lead layer. This is no mere "product by process" limitation, but rather is an explicit material property.

1189-3.AM1

BEST AVAILABLE COPY

FROM ROGJITZ 619 338 8078

(THU) JUN 30 2005 10:28/ST. 10:27/No. 6833031955 P 7

CASE NO.: HSJ920030051US1
Serial No.: 10/629,513
June 29, 2005
Page 7

PATENT
Filed: July 29, 2003

In marked contrast to Claim 1, the relied-upon structures evidently turn the recitation of Claim 1 on its head, because from the material combinations above it is evident that either the top lead layer of the references has a higher polish resistance than the bottom, or that the relative polish resistances are indeterminant. Specifically, consider the following table, which sets out, for illustration, specific non-limiting lead layer combinations set forth in, e.g., dependent Claims 3 and 4 which adhere to the general requirement of independent Claim 1, alongside the lead layer structures of the references.

<u>Claim 2/3:</u>	<u>Pinarbasi</u>	<u>Hasegawa</u>
bottom Rh, top Ta or Al	bottom Ta, top Cr or Rh	bottom Au alloy of indeterminant polish resist,
bottom Ta, top W or Cu	(opposite of claim 3, presumably	top Au, Cu, Ag
bottom Au, top Cu	results in opposite polish resist)	

Looking at the above table, it is clear that Pinarbasi discloses no combination of materials set forth in the dependent claims of Claim 1 and that indeed it appears to require a combination of materials that would produce the exact opposite material characteristic required in Claim 1, namely, a bottom layer of easier-to-polish Ta and a top layer of harder-to-polish Rh.

The same can be said of Hasegawa et al. Applicant is mindful that one combination of Hasegawa et al. produces a gold alloy in the bottom lead layer and copper in the top lead layer, but note that specific gold alloys are taught as the bottom lead layer, and there is no teaching or suggestion pointed to in Hasegawa et al. that these gold alloys (Au alloyed with either Pb, Cr, or Cu or Au alloyed with Cr, Rh, Ru, Ta, or W) in fact have higher polish resistance than the top layer of Au, Cu, Ag, as is otherwise required by Claim 1. In contrast, Claim 1 expressly requires that regardless of whether gold is included in the bottom lead layer

11893.AM1

BEST AVAILABLE COPY

FROM: ROGITZ 619 338 8078

(THU) JUN 30 2005 10:29/ST. 10:27/No. 6833031955 P 8

CASE NO.: HSJ920030051US1
Serial No.: 10/629,513
June 29, 2005
Page 8

PATENT
Filed: July 29, 2003

and copper is included in the top lead layer, the top lead layer must have a polish resistance that is less than the polish resistance of the bottom lead layer. As stated above, since Hasegawa et al. is focussed on ductility relative to its leads, and not to polish resistance, it cannot suggest Claim 1. The comments above apply to Claim 13 as well.

Since non-elected Claim 9 manifestly is patentable for reasons cited above, it is requested that it too be allowed, along with Claims 1 and 13 and their respective dependent claims.

Respectfully submitted,


John L. Rogitz
Registration No. 33,549
Attorney of Record
750 B Street, Suite 3120
San Diego, CA 92101
Telephone: (619) 338-8075

JLR:jg

11893.AM1